13.—So called 'soda water' from a spring near Discovery claim, three miles up McKee creek, east side of Atlin lake, Cassiar district, province of British Columbia. Collected by Mr. J. C. Gwillim. The sample of water received for examination contained a very trifling quantity of reddish-brown sedimentary matter which, on removal by filtration, was found to consist of hydrated peroxide of iron. The filtered water was clear, bright, colourless, and devoid of odour or any marked taste. Reaction, neutral, but when evaporated to a small volume, decidedly alkaline. Its specific gravity at 15·5°C., was found to be 1001·0. The total dissolved saline matter, dried at 180°C., amounted to 1·47 parts per 1000—equivalent to 103·00 grains per imperial gallon.

Agreeably with the results of a qualitative analysis, conducted by Mr. Wait, it contained:—

Soda	very small quantity.
Lime	rather small quantity.
Magnesia	rather small quantity.
Sulphuric acid	trace.
Carbonic acid	somewhat large quantity.
Chlorine	trace.
Silica	trace.
Organic matter	faint trace.

Boiling produced a rather small precipitate, consisting of carbonates of lime and magnesia.

MISCELLANEOUS EXAMINATIONS.

1.—Clay. From a deposit about six miles from Louisbourg and not far from the sea shore, Cape Breton county, province of Nova Scotia. Examined for Mr. W. Todd.

A light bluish gray, non-calcareous, plastic, somewhat difficultly fusible clay, which when burnt assumes a light reddish-brown colour. It might advantageously be employed for the manufacture of ordinary building brick, drain tiles, and all kinds of common earthenware.

2.—Clay. Found respectively, overlying and underlying a seam of lignite on Rock creek, a tributary of the Klondike river, Yukon district, North-west Territory.

(*a.*) Overlying clay. Colour, light gray; is non-calcareous; contains but a very small proportion of gritty matter; is plastic;